

Response Under 37 CFR §1.116  
EXPEDITED PROCEDURE  
Examining Group: 2827  
BOX AF

H-914

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

T. MIYAMOTO et al

Serial No. 09/530,490

Group Art Unit: 2827

Filed: April 28, 2000

Examiner: D. Graybill

For: SEMICONDUCTOR DEVICE AND PROCESS FOR  
MANUFACTURING THE SAME

**RESPONSE**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action mailed August 27, 2002,  
Applicants submit the following remarks.

**REMARKS**

No claims have been amended, canceled or added.  
Accordingly, claims 34-37 are currently pending in the  
application.

**REQUEST FOR WITHDRAWAL OF FINALITY OF OFFICE ACTION**

In light of the arguments presented below in connection  
with the rejection under 35 U.S.C. §103, it is submitted that

the outstanding Office Action was inappropriately made final. Claim 34 had been amended to recite that the surface passivation film is made of a silicon nitride film and that the elastomer layer is made of a polyimide film.

Furthermore, pursuant to MPEP §706.07(b), a request for an interview prior to first action on a continuing or substitute application should ordinarily be granted. This was not done.

### 35 U.S.C. §103

Claims 34-37 stand rejected under 35 U.S.C. §103 as being unpatentable over Akagawa and Iwasaki. This rejection is traversed as follows.

The Examiner has maintained his previous rejection and has dismissed the specific recitation of a silicon nitride passivation film alleging that a silicon oxide passivation film as taught by Akagawa et al is a functional equivalent by relying upon Iwasaki et al. While a silicon nitride film and a silicon oxide film can be said to be functionally equivalent when used as a film generally covering the main surface of a chip, it cannot be said that they are functionally equivalent for the purpose of restraining intrusion of moisture into the main surface of the chip when taking in conjunction with an

elastomer layer of a polyimide film having an elastic modulus relatively lower than the surface passivation film.

The polyimide film of low elasticity has a tendency to easily absorb moisture due to its relatively porous structure. Therefore, the present inventors have discovered the need for a silicon nitride film having a more dense structure in order to restrain the intrusion of a moisture. The same cannot be said for a silicon oxide film used in conjunction with the claimed elastomer layer.

Therefore, it is submitted that one of ordinary skill in the art would not modify the teaching of Akagawa et al as asserted by the Examiner absent hindsight reconstruction. This is clearly a case where the Examiner has improperly substituted missing claim elements in one reference using another reference without the necessary motivation.

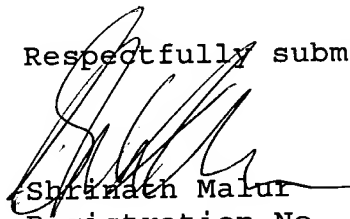
#### **REQUEST FOR INTERVIEW**

In a Preliminary Amendment filed June 18, 2002, Applicants requested that the Examiner contact the undersigned by telephone to set-up an interview. Instead, Applicants received a first-action Final Rejection. Applicants once again request the Examiner to conduct an interview with the undersigned at any time suitable to the Examiner.

**CONCLUSION**

In view of the foregoing remarks, Applicants contend that the above-identified application is now in condition for allowance. Accordingly, reconsideration and reexamination are respectfully requested.

Respectfully submitted,

  
Shrinath Malur  
Registration No. 34,663  
Attorney for Applicants

MATTINGLY, STANGER & MALUR  
1800 Diagonal Rd., Suite 370  
Alexandria, Virginia 22314  
(703) 684-1120  
Date: November 25, 2002